

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 61169699
PUBLICATION DATE : 31-07-86

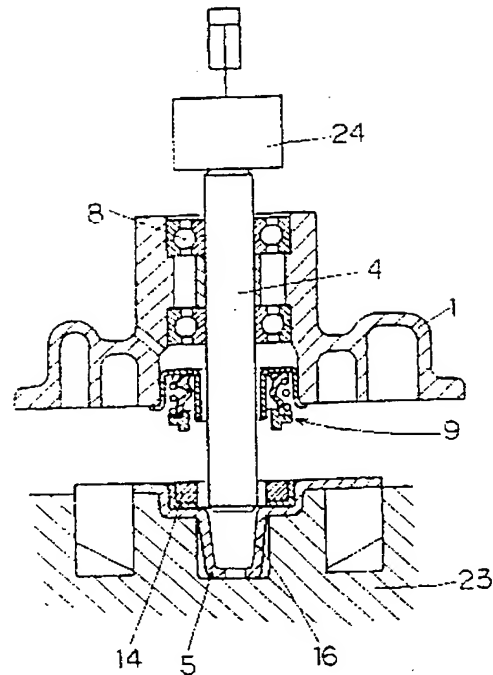
APPLICATION DATE : 23-01-85
APPLICATION NUMBER : 60010575

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INT.CL. : F04D 29/20 F01P 5/10

TITLE : CONNECTION BETWEEN DRIVING
SHAFT AND IMPELLER OF WATER
PUMP FOR INTERNAL-COMBUSTION
ENGINE



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ABSTRACT : PURPOSE: To obtain the firm joint force between a driving shaft and an impeller by press-molding a boss part into a truncated-cone form which becomes narrower towards the innermost part and press-fitting the truncated-cone-shaped boss part through the spread-diameter-molding by a driving shaft.

CONSTITUTION: The tilt angle θ of the boss part 16 of an impeller 5 is set at 5° with respect to the axis line, and the diameter (d) of the port root is formed nearly equal to a driving shaft. A chamfered part is formed onto the driving shaft 4, and the truncated-cone-shaped boss part 16 is press-fitted through spread-diameter-molding by pressing from behind a pressing apparatus 24. Therefore, the boss part 16 firmly tightens the driving shaft 4 by the spring-back action of the boss part 16 on spread-diameter-molding, and the impeller 5 and the driving shaft 4 can be firmly joined.

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